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EXAMINER
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* PAT REICH

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Appeal 2007-3088  
Application 10/821,026  
Technology Center 3600

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Decided: March 24, 2008

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Before MURRIEL E. CRAWFORD, JENNIFER D. BAHR and  
JOSEPH A. FISCHETTI *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1-4, 9, 14 and 17. We have jurisdiction under 35 U.S.C. § 6(b) (2002). The Examiner objected to claims 5-8 and 10-13 as being dependent upon a rejected base claim, but indicated these claims would be allowable if rewritten in independent form.

This appeal arises from the Examiner's Final Rejection mailed January 4, 2006. The Appellant filed an Appeal Brief in support of the appeal on November 2, 2006 and a Reply Brief on March 21, 2007. An Examiner's Answer to the Appeal Brief was mailed on February 22, 2007.

## SUMMARY OF DECISION

We AFFIRM IN PART.

## THE INVENTION

Appellant claims a method and apparatus which relates generally to riding mowers with mechanisms for adjusting the deck height which is said to provide a deck height adjustment that is easily operable while the operator is sitting on the riding mower. (Specification 2:2-4)

Claims 1 and 9, reproduced below, are representative of the subject matter on appeal.

1. An apparatus for adjusting the height of a mowing deck of a riding mower relative to a ground surface, the riding mower having a frame supporting an operator seating area and a deck lift system, wherein the mowing deck is supported by the deck lift system, the apparatus comprising:

a lever pivotally connected to the frame of the mower proximate the operator seating area;

a moveable arm having a first end pivotally connected to the lever and a second end, opposite the first end, operably connected to the deck lift system, the arm comprising a shoulder between the first end and the second end generally adjacent the operator seating area, wherein the shoulder connects to and extends generally normal to the arm; and

a cam wheel rotationally connected to the frame of the mower proximate the shoulder of the arm, the cam wheel having an axis of rotation and an outer edge of varying radius relative to the axis of rotation, wherein the shoulder contacts a portion of the outer edge when the lever is in a first position, the shoulder is spaced from the outer edge when the lever is in a second position, and wherein the mowing deck height above the ground surface is a function of the radius of the cam outer edge in contact with the shoulder.

9. A method of adjusting the deck height on a riding mower from a first deck height to a second deck height, the riding mower comprising a frame, a deck lift mechanism connected to the frame, a mowing deck connected to and supported by the deck lift mechanism, and an operator seating area, the method comprising:

providing a lever pivotally connected to the frame proximate to the operator seating area;

providing a displaceable arm operably connected between the lever and the deck lift system, the displaceable arm comprising a shoulder on the arm between the lever and the deck lift system; and

providing a cam wheel rotationally connected to the frame near the shoulder of the displaceable arm, the cam wheel having an axis of rotation, an outer edge, and a varying radius relative to the axis of rotation, wherein a portion of the outer edge contacts the shoulder when the lever is in a first position;

moving the lever from the first position to a second position, and displacing the arm and locating the shoulder away from the outer edge of the cam, thereby lifting the mowing deck to a raised position;

rotating the cam wheel to a position representative of a desired deck height; and

moving the lever from the second position to the first position, thereby displacing the arm and locating the shoulder in contact with the cam outer edge to lower the mowing deck to the desired height.

#### THE REJECTION

The Examiner relies upon the following as evidence of unpatentability:

Swartzendruber

U.S. 6,837,032 B1

Jan. 4, 2005

The following rejection is before us for review.

Claims 1-4, 9 and 14 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Swartzendruber.

### ISSUE

The issue is whether Appellant has sustained its burden of showing that the Examiner erred in rejecting the claims on appeal under 35 U.S.C. § 102(e) as being anticipated by Swartzendruber.

### FINDINGS OF FACT

1. Swartzendruber discloses a plate 90 (read as an arm) having a first end shown in Figure 8 which is slotted to receive a portion of rock shaft 70 therein to thereby translate rotation to the plate 90 such that during extension of pedal 28, the plate 90 is then permitted to rock substantially forwardly of left plate 72. (Swartzendruber col. 4, ll. 18-20)
2. The plate 90 has a second end 122 (Figure 8) disposed oppositely of the first end with notches 120 which are engaged by the lever 86 having a slot 124 formed in it to receive and to hold the plate 90 against rotation in the counter clockwise direction thereby allowing the “deck 18 to be reinstalled with the same ease and at the same position made available upon its removal.” (Swartzendruber col. 4, ll. 41-63)

3. In Swartzendruber, the deck lift system, i.e., the elements responsible for lifting the deck, are comprised of (1) the pedal/lever 28/62, which is operably connected to lift links 76 carried by two spaced plates 72 and 74, and (2) a connecting rod 69 and a rock shaft 70 which together translate rotation from the pedal to lifting motion in the links 76 because the spaced plate 72 is connected to the pedal/lever by the rod 69 and both plates 72, 74 are nonrotatably coupled to the rock shaft 70, thereby causing the links 76 to be moved vertically in unison by the rotation of the rock shaft 70 when the pedal is pushed (Swartzendruber col.3, ll. 40-52)
4. The plate 90 also includes a transverse pin 114 adjacent the second end of the plate which is selectively engagable by a claw 112 on the latch lever 86 to hold the deck at its maximum clearance when the deck needs to clear obstacles encountered when traveling across the ground (col.4 ll. 20-31).
5. Swartzendruber's plate 90 is operably connected between the lever 62 and the deck system (FF 1) in that the plate 90 is mounted on the rock shaft 70 intermediately or between the lever 62 and the lifting links 76 (Swartzendruber, Figure 7).
6. In Swartzendruber, the plate 90 has a side 128 with a shoulder (Figures 5 and 8) which abuts a height adjuster 118 when the plate is in a first position to set a desired cutting height and is movable to a

non-abutting spaced second position out of engagement with the adjuster 118 when the pedal 28 is extended (Swartzendruber, col. 5, ll. 1-9).

### PRINCIPLES OF LAW

We begin with the language of the claims. The general rule is that terms in the claim are to be given their ordinary and accustomed meaning. *Johnson Worldwide Assocs. v. Zebco Corp.*, 175 F.3d 985, 989, (Fed. Cir. 1999). In the United States Patent and Trademark Office (USPTO), claims are construed giving their broadest reasonable interpretation.

[T]he Board is required to use a different standard for construing claims than that used by district courts. We have held that it is error for the Board to “appl[y] the mode of claim interpretation that is used by courts in litigation, when interpreting the claims of issued patents in connection with determinations of infringement and validity.” *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320 (Fed. Cir. 1989); accord *In re Morris*, 127 F.3d 1048, 1054, (Fed. Cir. 1997) (“It would be inconsistent with the role assigned to the PTO in issuing a patent to require it to interpret claims in the same manner as judges who, post-issuance, operate under the assumption the patent is valid.”). Instead, as we explained above, the PTO is obligated to give claims their broadest reasonable interpretation during examination.

*In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364, (Fed. Cir. 2004).



### *Anticipation*

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art.” *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

### *Obviousness*

A claimed invention is unpatentable if the differences between it and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. § 103(a) (2000); *KSR Int’l v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14.

In *Graham*, the Court held that that the obviousness analysis is bottomed on several basic factual inquiries: “[1)] the scope and content of

the prior art are to be determined; [(2)] differences between the prior art and the claims at issue are to be ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved.” 383 U.S. at 17, 148 USPQ at 467. *See also KSR Int’l v. Teleflex Inc.*, 127 S.Ct. at 1734. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, at 1739.

“When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or in a different one. If a person of ordinary skill in the art can implement a predictable variation, § 103 likely bars its patentability.” *Id.* at 1740.

“For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *Id.*

“Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* at 1742.

## ANALYSIS

### *Claims 1-4, 14 and 17*

Independent claims 1 and 14 are argued together as one group. Claims 2-4, and 17, which depend thereon, are not separately argued apart from

independent claims 1 and 14 and thus stand or fall with claims 1 and 14. 37  
C.F.R. § 41.37(c)(1)(vii) (2007).

For the reasons that follow, we do not sustain the Examiner's rejection of claims 1-4, 14 and 17.

Each of independent claims 1 and 14 requires "...a moveable arm having a first end pivotally connected to the lever and a second end, opposite the first end, operably connected to the deck lift system,...". The Examiner found that Swartzendruber discloses "[a] movable arm (90) having a first end pivotally connected to the lever (28, 31) and a second end operably connected to the deck lift system or rear rotating assembly...." (Final 2). The Examiner reasoned that "... arm (90) pivotally connects with lever (62) through the rockshaft (70) and rod (69), [and thus operates] ... with the same purpose as the arm of the invention." (Answer 4)

We will accept the Examiner's reasoning that the loosely fitted slotted arrangement between the plate 90 and the rock shaft 70 shown in Figure 8 constitutes a connection to the lever at a first end of the plate 90, but we cannot conclude that Swartzenbruder discloses that the plate 90 has a second end connected to the deck lift system as required by claim 1.

That is, the opposite second end of the plate 90 is defined by an edge 122 (Figure 8) which operably engages with a latch lever 86, and not the deck lift system (FF 2), as required by the claims. The latch lever is responsible for holding the deck at a vertically given height, but is not part

of the deck lift system (FF 2-4). Further, the plate second end 122 is not engaged by the latch lever 86 so as to constitute a connection. Webster's Collegiate Dictionary Tenth Edition (1996) defines "connect" *inter alia*, as 1: to join or fasten together usu[ally] by something intervening. There are only two modes in which such engagement between the latch lever 86 and the second end 122 occur, and both are non-cutting modes of the mower. One is when the latch lever 86 seats within a notch 120 to hold the plate 90 against rotation in the counter clockwise direction thereby allowing the "deck 18 to be reinstalled with the same ease and at the same position made available upon its removal." (FF 2) The other mode is when the transverse pin 114 of the plate 90 is selectively engaged by the claw 112 on the latch lever 86 to hold the deck at its maximum clearance when the deck needs to clear obstacles encountered when traveling across the ground (FF 4). Thus, even if somehow it could be shown that latch lever 86 was part of the lift system, the selective and non-normal modes of contact between the second end of plate 90 and the latch lever 86 are structurally insufficient and discontinuous to constitute the joining or fastening of these parts as the word "connected" requires.

Since claims 2-4 depend from claim 1, and claim 17 depends from claim 14, we cannot sustain the rejection of these dependent claims because we have not sustained the rejection of the independent claims 1 and 14 on which these claims are based.

*Claim 9*

We sustain the rejection of method claim 9.

Claim 9 requires, in pertinent part, "...providing a displaceable arm operably connected between the lever and the deck lift system....", and thus is broader than claims 1 and 14.<sup>1</sup>

Appellant argues "[t]he operable connection of the arm to the lever and the deck lift system defined in claim 9 associates the arm with the lifting and lowering movement of the mowing deck." (Appeal Br. 9)

However, Swartzendruber does disclose that the plate 90 is operably connected between the lever 62 and the deck system in that the plate 90 is mounted on the rock shaft 70 intermediately or between the lever 62 and the lifting links 76 (FF 3). Furthermore, Appellant's arguments fail because they are not based on limitations appearing in the claims in that nowhere in claim 9 is it required that the term "operably" relate to a lifting function as argued by Appellant. Rather, claim 9 only requires that the arm be operable with something - which occurs in Swartzendruber where the plate 90 is operably connected to the rock shaft 70 in that the plate 90 rocks with shaft 90 when the shaft is rotated (FF 1). *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982).

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<sup>1</sup> Claims 1 and 14 recite more narrowly "...a moveable arm having a first end pivotally connected to the lever and a second end, opposite the first end, operably connected to the deck lift system...."

Appellant further argues that “[i]n Swartzendruber et al., however, plate 90, which the Examiner has erroneously interpreted to satisfy the arm requirement of claim 9, plays no role in the lifting operation of the deck.” (Appeal Br. 9) First, as discussed *supra*, claim 9 does not require the arm to have a role in the lifting operation of the deck. Second, Webster’s Collegiate Dictionary Tenth Edition (1996) defines “arm” *inter alia*, as “a slender part of a structure, machine, or an instrument projecting from a main part axis or fulcrum. As found *supra* (FF 1, 2), the plate 90 projects from the rock shaft 70, which in essence acts as a fulcrum, to follow the rotation of the shaft 70 and thus translate this rotation to the latch lever 86 (FF 1,4). It is further shown in Figure 8 as a slender part. Since, Appellant’s Specification does not specifically define the term “arm”, nor does it utilize the term contrary to its customary meaning set forth above, we conclude that the member 90 in Swartzendruber is an “arm” as required by claim 9.

Appellant next argues “[t]he Examiner has erroneously interpreted the edge of plate 90 to satisfy the shoulder requirement of claim 9.” (Appeal Br. 9) However, as shown in Figure 8, the plate 90 has a shoulder or notched out portion shown just above hole 106 which, like Appellant’s shoulder 179<sup>2</sup>, extends transversely to the length of the plate 90, and abuts a

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<sup>2</sup> Appellant’s Summary of Claimed Subject Matter recites: The shoulder 179 is generally adjacent the operator seating area 26. The shoulder 179 connects to and extends generally normal to the arm 52. The cam wheel 190 has an axis of rotation and an outer edge 214 of varying radius *r* relative to

variable radius adjustment wheel responsible for maintaining the deck at a given cutting height as a result of the action of the lever/pedal 28/62 (FF 6), as required by claim 9.

Accordingly we sustain the rejection of claim 9.

### CONCLUSIONS OF LAW

We conclude:

We cannot sustain the rejection of claims 1-4 and 14 and 17 under 35 U.S.C. § 102(e) as being anticipated by Swartzendruber.

We sustain the rejection of claim 9 under 35 U.S.C. § 102(e) as being anticipated by Swartzendruber.

### DECISION

The decision of the Examiner to reject claims 1-4 and 14 and 17 is REVERSED.

The decision of the Examiner to reject claim 9 is AFFIRMED.

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the axis of rotation. The shoulder 179 contacts a portion of the outer edge 214 when the lever 46 is in a first position, and the shoulder 179 is spaced from the outer edge 214 when the lever 46 is in a second position. (Appeal Br. 3)

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED-IN-PART

vsh

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